

**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

*Claims 1-5 (canceled).*

6. (new) An inverter device comprising:

a calculating unit configured to calculate at least one output-voltage command value based on a frequency command value for driving a motor and a state quantity of the motor, in each calculation period;

a signal output unit configured to output a pulse-width-modulation signal according to the output-voltage command value; and

a switching unit configured to switch a direct voltage according to the pulse-width-modulation signal to supply an alternating voltage having a predetermined frequency to the motor, wherein

the calculating unit is configured to calculate a plurality of output-voltage command values when a phase change amount is higher than a threshold, and to calculate a single output-voltage command value when the phase change amount is equal to or less than the threshold, wherein

the calculating unit is configured to calculate more number of output-voltage command values when the frequency command value is higher than a threshold than when the frequency command value is lower than the threshold.

7. (new) An inverter device comprising:

a calculating unit configured to calculate at least one output-voltage command value based on a frequency command value for driving a motor and a state quantity of the motor, in each calculation period;

a signal output unit configured to output a pulse-width-modulation signal according to the output-voltage command value; and

a switching unit configured to switch a direct voltage according to the pulse-width-modulation signal to supply an alternating voltage having a predetermined frequency to the motor, wherein

the calculating unit is configured to calculate a plurality of output-voltage command values when a phase change amount is higher than a threshold, and to calculate a single output-voltage command value when the phase change amount is equal to or less than the threshold, wherein

the calculating unit is configured to calculate a plurality of output-voltage command values when the frequency command value is higher than a threshold, and to calculate a single output-voltage command value when the frequency command value is lower than the threshold.